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SMITHSONIAN INSTITUTION.
UNITED STATES NATIONAL MUSEUM.

THE MUSEUMS OF THE FUTURE.

BY

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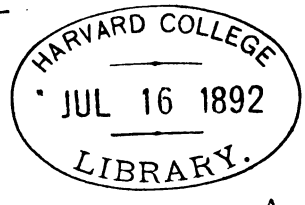

Smithsonian Inst.

THE MUSEUMS OF THE FUTURE.*

By G. Brown Goode, LL. D.

There is an Oriental saying that the distance between ear and eye is small, but the difference between hearing and seeing very great.

More terse and not less forcible is our own proverb, "To *see* is to know," which expresses a growing tendency in the human mind.

In this busy, critical, and skeptical age, each man is seeking to know all things, and life is too short for many words. The eye is used more and more, the ear less and less, and in the use of the eye, descriptive writing is set aside for pictures, and pictures in their turn are replaced by actual objects. In the school-room the diagram, the blackboard, and the object-lesson, unknown thirty years ago, are universally employed. The public lecturer uses the stereopticon to re-enforce his words, the editor illustrates his journals and magazines with engravings a hundred-fold more numerous and elaborate than his predecessor thought needful, and the merchant and manufacturer recommend their wares by means of vivid pictographs. The local fair of old has grown into the great exposition, often international and always under some governmental patronage, and thousands of such have taken place within forty years, from Japan to Tasmania, and from Norway to Brazil.

Amid such tendencies, the museum, it would seem, should find congenial place, for it is the most powerful and useful auxiliary of all systems of teaching by means of object lessons.

The work of organizing museums has not kept pace with the times. The United States is far behind the spirit of its own people, and less progressive than England, Germany, France, Italy, or Japan. We have, it is true, two or three centers of great activity in museum work, but there have been few new ones established within twenty years, and many of the old are in a state of torpor. This can not long continue. The museum of the past must be set aside, reconstructed, transformed from a cemetery of bric-a-brac into a nursery of living thoughts. The museum of the future must stand side by side with the library and the laboratory, as a part of the teaching equipment of the college and university, and in the great cities co-operate with the public library as one of the principal agencies for the enlightenment of the people.

*A lecture delivered before the Brooklyn Institute, February 28, 1889.

The true significance of the word museum may best be appreciated through an allusion to the ages which preceded its origin—when our ancestors, hundreds of generations removed, were in the midst of those great migrations which peopled Europe with races originally seated in Central Asia.

It has been well said that the early history of Greece is the first chapter in the political and intellectual life of Europe. To the history of Greece let us go for the origin of the museum idea, which, in its present form, seems to have found its only congenial home among the European off-shoots of the great Indo-Germanic or Aryan division of the world's inhabitants. Long centuries before the invention of written languages there lived along the borders of northern Greece, upon the slopes of Mount Olympus and Helicon, a people whom the later Greeks called "Thracians," a half-mythical race, whose language even has perished. They survived in memory, we are told, as a race of bards, associated with that peculiar legendary poetry of pre-Homeric date, in which the powers of nature were first definitely personified. This poetry belonged, presumably, to an age when the ancestors of the Greeks had left their Indo-European home, but had not yet taken full possession of the lands which were afterward Hellenic. The spirits of nature sang to their sensitive souls with the voice of brook and tree and bird, and each agency or form which their senses perceived was personified in connection with a system of worship. There were spirits in every forest or mountain, but in Thrace alone dwelt the Muses—the spirits who know and who remember, who are the guardians of all wisdom, and who impart to their disciples the knowledge and the skill to write.

Museums, in the language of Ancient Greece, were the homes of the Muses. The first were in the groves of Parnassus and Helicon, and later they were temples in various parts of Helles. Soon, however, the meaning of the word changed, and it was used to describe a place of study, or a school. Athenæus in the second century described Athens as "the museum of Greece," and the name was applied to that portion of the palace of Alexandria which was set apart for the study of the sciences and which contained the famous Alexandrian library. The museum of Alexandria, was a great university, the abiding place of men of science and letters, who were divided into many companies or colleges, for the support of each of which a handsome revenue was allotted.

The Alexandrian museum was burned in the days of Cæsar and Aurelian, and the term museum, as applied to a great public institution, dropped out of use from the fourth to the seventeenth century. The disappearance of a word is an indication that the idea for which it stood had also fallen into disfavor, and such, indeed, was the fact.

The history of museum and library runs in parallel lines. It is not until the development of the arts and sciences has taken place, until an extensive written literature has grown up, and a distinct literary and

scientific class has been developed, that it is possible for the modern library and museum to come into existence. The museum of the present is more unlike its old-time representative, than is our library unlike its prototype.

There were, in the remote past, galleries of pictures and sculpture as well as museums, so-called. Public collections of paintings and statuary were founded in Greece and Rome at a very early day. There was a gallery of paintings (Pinacotheca) in one of the marble halls of the Propylæum at Athens, and in Rome there was a lavish public display of works of art.

M. Dezobry, in his brilliant work upon "Rome in the time of Augustus" (*Rome au siecle d'Auguste*), described this phase of the Latin civilization in the first century before Christ.

"For many years," remarks one of his characters, "the taste for paintings has been extending in a most extraordinary manner. In former times they were only to be found in the temples, where they were placed, less for purposes of ornament than as an act of homage to the gods; now they are everywhere, not only in temples, in private houses, and in public halls; but also on outside walls, exposed freely to air and sunlight. Rome is one great picture gallery; the Forum of Augustus is gorgeous with paintings, and they may be seen also in the Forum of Cæsar, in the Roman Forum, under the peristyles of many of the temples, and especially in the porticoes used for public promenades, some of which are literally filled with them. Thus everybody is enabled to enjoy them, and to enjoy them at all hours of the day."

The public men of Rome at a later period in its history were no less mindful of the claims of art. They believed that the metropolis of a great nation should be adorned with all the best products of civilization. We are told by Pliny that when Cæsar was dictator, he purchased for 300,000 deniers two Greek paintings, which he caused to be publicly displayed, and that Agrippa placed many costly works of art in a hall which he built and bequeathed to the Roman people. Constantine gathered together in Constantinople the paintings and sculptures of the great masters, so that the city before its destruction became a great museum like Rome.

The taste for works of art was in the days of the ancient civilizations generally prevalent throughout the whole Mediterranean region, and there is abundant reason to believe that there were prototypes of the modern museum in Persia, Assyria, Babylonia, and Egypt, as well as in Rome.

Collections in natural history also undoubtedly existed, though we have no positive descriptions of them. Natural curiosities, of course, found their way into the private collections of monarchs, and were doubtless also in use for study among the savants in the Alexandrian museums. Aristotle, in the fourth century before Christ, had, it is said, an enormous grant of money for use in his scientific researches, and

Alexander the Great, his patron, "took care to send to him a great variety of zoölogical specimens, collected in the countries which he had subdued," and also "placed at his disposal several thousand persons, who were occupied in hunting, fishing, and making the observations which were necessary for completing his History of Animals." If human nature has not changed more than we suppose, Aristotle must have had a great museum of natural history.

When the Roman capital was removed to Byzantium, the arts and letters of Europe began to decline. The Church was unpropitious, and the invasions of the northern barbarians destroyed everything. In 476, with the close of the Western Empire, began a period of intellectual torpidity which was to last for a thousand years. It was in Bagdad and Cordova that science and letters were next to be revived, and Africa was to surpass Europe in the exhibit of its libraries.

With the Renaissance came a period of new life for collectors. The churches of southern Europe became art galleries, and monarchs and noblemen and ecclesiastical dignitaries collected books, manuscripts, sculptures, pottery, and gems, forming the beginnings of collections which have since grown into public museums. Some of these collections doubtless had their first beginnings in the midst of the Dark Ages within the walls of feudal castles or the larger monasteries, but their number was small, and they must have consisted chiefly of those objects so nearly akin to literature as especially to command the attention of bookish men.

The idea of a great national museum of science and art was first worked out by Lord Bacon in his "New Atlantis," a philosophical romance published at the close of the seventeenth century.

The first scientific museum actually founded was that begun at Oxford, in 1667, by Elias Ashmole, still known as the Ashmolean Museum, composed chiefly of natural history specimens collected by the botanists Tradescant, father and son, in Virginia and in the north of Africa. Soon after, in 1753, the British Museum was established by act of Parliament, inspired by the will of Sir Hans Sloane, who, dying in 1749, left to the nation his invaluable collection of books, manuscripts, and curiosities.

Many of the great national museums of Europe had their origin in the private collections of monarchs. France claims the honor of having been the first to change a royal into a national museum, when in 1789, the Louvre came into the possession of a republican government.

It is very clear, however, that democratic England stands several decades in advance—its act, moreover, being one of deliberate founding rather than a species of conquest. A century before this, when Charles the First was beheaded by order of Parliament, his magnificent private collection was dispersed. What a blessing it would be to England to-day if the idea of founding a national museum had been suggested to the Cromwellians. The intellectual life of America is so closely bound to

that of England, that the revival of interest in museums, and in popular education, at the middle of the present century, is especially significant to us.

The Great Exhibition of 1851 was one of the most striking features of the industrial revolution in England, that great transformation which, following closely upon the introduction of railroads, turned England feudal and agricultural, into England democratic and commercial. This Exhibition marked an epoch in the intellectual progress of English speaking peoples. "The Great Exhibition," writes a popular novelist—a social philosopher as well—"did one great service for country people: It taught them how easy it is to get to London, and what a mine of wealth, especially for after-memory and purposes of conversation, exists in that great place."

Our own Centennial Exhibition in 1876 was almost as great a revelation to the people of the United States. The thoughts of the country were opened to many things before undreamed of. One thing we may regret—that we have no such wide-spread system of museums as that which has developed in the motherland, with South Kensington as its administrative center.

Under the wise administration of the South Kensington staff, an outgrowth of the events of 1851, a great system of educational museums has been developed all through the United Kingdom. A similar extension of public museums in this country would be quite in harmony with the spirit of the times, as shown in the present efforts toward university extensions.

England has had nearly forty years in which to develop these tendencies, and we but thirteen since our Exhibition. May we not hope that within a like period of time and before the year 1914, the United States may have attained the position which England now occupies, at least in the respect of popular interest and substantial governmental support.

There are now over one hundred and fifty public museums in the United Kingdom, all active and useful. The museum systems of Great Britain are, it seems to me, much closer to the ideal which America should follow than are those of either France or Germany. They are designed more thoughtfully to meet the needs of the people, and are more intimately intertwined with the policy of national, popular education. Sir Henry Cole, the founder of the "Department of Science and Art," speaking of the purpose of the museum under his care, said to the people of Birmingham in 1874: "If you wish your schools of science and art to be effective, your health, the air, and your food to be wholesome, your life to be long, your manufactures to improve, your trade to increase, and your people to be civilized, you must have museums of science and art, to illustrate the principles of life, health, nature, science, art, and beauty.

Again, in words as applicable to America of to-day as to Britain

in 1874, said he: "A thorough education and a knowledge of science and art are vital to the nation and to the place it holds at present in the civilized world. Science and art are the life-blood of successful production. All civilized nations are running a race with us, and our national decline will date from the period when we go to sleep over the work of education, science, and art. What has been done is at the mere threshold of the work yet to be done."

The museums of the future in this democratic land should be adapted to the needs of the mechanic, the factory operator, the day laborer, the salesman, and the clerk, as much as to those of the professional man and the man of leisure. It is proper that there be laboratories and professional libraries for the development of the experts who are to organize, arrange and explain the museums. It is proper that the laboratories be utilized to the fullest extent for the credit of the institution to which they belong. No museum can grow and be respected which does not each year give additional proofs of its claims to be considered a center of learning.

On the other hand the public have a right to ask that much shall be done directly in their interest. They will gladly allow the museum officer to use part of his time in study and experiment. They will take pride in the possession by the museum of tens of thousands of specimens, interesting only to the specialists, hidden away perpetually from public view, but necessary for purpose of scientific research. These are foundations of the intellectual superstructure which gives the institution its standing.

Still no pains must be spared in the presentation of the material in the exhibition halls. The specimens must be prepared in the most careful and artistic manner, and arranged attractively in well-designed cases and behind the clearest of glass. Each object must bear a label, giving its name and history so fully that all the probable questions of the visitor are answered in advance. Books of reference must be kept in convenient places. Colors of walls, cases, and labels must be restful and quiet, and comfortable seats should be everywhere accessible, for the task of the museum visitor is a weary one at best.

In short, the public museum is, first of all, for the benefit of the public. When the officers are few in number, each must of necessity devote a considerable portion of his time to the public halls. When the staff becomes larger, it is possible by specialization of work to arrange that certain men may devote their time uninterruptedly to laboratory work, while others are engaged in the increase of the collections and their installation.

I hope and firmly believe that every American community with inhabitants to the number of five thousand or more will within the next half century have a public library, under the management of a trained librarian. Be it ever so small, its influence upon the people would be of untold value. One of the saddest things in this life is to realize

that in the death of the elder members of a community, so much that is precious in the way of knowledge and experience is lost to the world. It is through the agency of books that mankind benefits by the toil of past generations and is able to avoid their errors.

In these days, when printing is cheap and authors are countless, that which is good and true in human thought is in danger of being entirely overlooked. The daily papers, and above all the overgrown and uncanny Sunday papers, are like weeds in a garden whose rank leaves not only consume the resources of the soil but hide from view the more modest and more useful plants of slower growth.

Most suggestive may we find an essay on "Capital and Culture in America" which recently appeared in one of the English reviews. The author, a well known Anglo-American astronomer, boldly asserts that year by year it becomes clearer that despite the large increase in the number of men and women of culture in America, the nation is deteriorating in regard to culture. Among five hundred towns where formerly courses of varied entertainments worthy of civilized communities—concerts, readings, lectures on artistic, literary, and scientific subjects, and so forth were successfully arranged season after season, scarcely fifty now feel justified in continuing their efforts in the cause of culture, knowing that the community will not support them. Scientific, literary, and artistic societies, formerly flourishing, are now dying or dead in many cities which have in the meantime increased in wealth and population." He instances Chicago as typical of an important portion of America, and cites evidences of decided deteriraotoin within sixteen years.

The people's museum should be much more than a house full of specimens in glass cases. It should be a house full of ideas, arranged with the strictest attention to system.

I once tried to express this thought by saying "*An efficient educational museum may be described as a collection of instructive labels, each illustrated by a well-selected specimen.*"

The museum, let me add, should be more than a collection of specimens well arranged and well labeled. Like the library, it should be under the constant supervision of one or more men well informed, scholarly and withal practical, and fitted by tastes and training to aid in the educational work.

I should not organize the museum primarily for the use of the people in their larval or school-going stage of existence. The public school teacher with the illustrated text-book, diagrams, and other appliances, is in these days a professional outfit which is usually quite sufficient to enable him to teach his pupils. School days last at the most only from five to fifteen years, and they end with the majority of mankind before their minds have reached the stage of growth most favorable for the reception and assimilation of the best and most useful thought. Why should we be crammed in the times of infancy and kept in a state of

mental starvation during the period which follows, from maturity to old age, a state which is disheartening and unnatural, all the more because of the intellectual tastes which have been stimulated and partially formed by school life.

The boundary line between the library and the museum is neither straight nor plain. The former, if its scope be rightly indicated by its name, is primarily a place for books. The latter is a depository for objects of every kind, books not excepted.

The British Museum, with its libraries, its pictures, its archæological galleries, its anthropological, geological, botanical, and zoölogical collections, is an example of the most comprehensive interpretation of the term.

Professor Huxley has described the museum as "a consultative library of objects." This definition is suggestive but unsatisfactory. It relates only to the contents of the museum, as distinguished from those of the library, and makes no reference to the differences in the methods of their administration. The treasures of the library must be examined one at a time and by one person at a time; their use requires long-continued attention, and their removal from their proper places in the system of arrangement. Those of the museum are displayed to public view, in groups, in systematic sequence, so that they have a collective as well as an individual significance. Furthermore, much of their meaning may be read at a glance.

The museum cultivates the powers of observation, and the casual visitor even makes discoveries for himself and under the guidance of the labels forms his own impressions. In the library one studies the impressions of others. The library is most useful to the educated, the museum to educated and uneducated alike, to the masses as well as to the few, and is a powerful stimulant to intellectual activity in either class. The influence of the museum upon a community is not so deep as that of the library, but extends to a much larger number of people.

The National Museum has 300,000 visitors a year, each of whom carries away a certain number of new thoughts.

The two ideas may be carried out, side by side, in the same building, and if need be under the same management, not only without antagonism, but with advantage.

That the proximity of a good library is absolutely essential to the usefulness of a museum will be admitted by every one.

I am confident also that a museum, wisely organized and properly arranged, is certain to benefit the library near which it stands in many ways through its power to stimulate interest in books, thus increasing the general popularity of the library and enlarging its endowment.

Many books and valuable ones would be required in the first kind of museum work, but it is not intended to enter into competition with the library. (When necessary, volumes could be duplicated.) It is very often the case, however, that books are more useful and safer in the

museum than on the library shelves, for in the museum they may be seen daily by thousands, while in the library their very existence is forgotten by all except their custodian.

Audubon's "Birds of North America" is a book which every one has heard of and which every one wants to see at least once in his lifetime. In a library, it probably is not examined by ten persons in a year; in a museum, the volumes exposed to view in a glass case, a few of the most striking plates attractively framed and hung upon the wall near at hand, it teaches a lesson to every passer-by.

The library may be called upon for aid by the museum in many directions. Pictures are often better than specimens to illustrate certain ideas. The races of man and their distribution can only be shown by pictures and maps. Atlases of ethnological portraits and maps are out of place in a library if there is a museum near by in which they can be displayed. They are not even members of the class described by Lamb as "books which are not books". They are not books, but museum specimens masquerading in the dress of books.

There is another kind of depository which, though in external features so similar to the museum, and often confused with it in name as well as in thought, is really very unlike it. This is the art gallery. The scientific tendencies of modern thought have permeated every department of human activity, even influencing the artist. Many art galleries are now called museums, and the assumption of the name usually tends toward the adoption in some degree of a scientific method of installation. The difference between a museum and a gallery is solely one of method of management. The Musée des Thermes, the Cluny Museum in Paris is, notwithstanding its name, simply a gallery of curious objects. Its contents are arranged primarily with reference to their effect. The old monastery in which they are placed, affords a magnificent example of the interior decorative art of the Middle Ages.

The Cluny Museum is a most fascinating and instructive place. I would not have it otherwise than it is, but it will always be unique, the sole representative of its kind. The features which render it attractive would be ruinous to any museum. It is, more than any other that I know, a collection arranged from the stand-point of the artist. The same material, in the hands of a Klemm or a Pitt Rivers, arranged to show the history of human thought, would, however, be much more interesting, and, if the work were judiciously done, would lose none of its æsthetic allurements.

Another collection of the same general character as the one just described is the Soane Museum in London. Another, the famous collection of crown jewels and metal work in the Green Vaults at Dresden, a counterpart of which may be cited in the collection in the Tower of London. The Museum of the Hohenzollerns in Berlin and the Museum of the City of Paris are of necessity unique. Such collections can not

be created. They grow in obedience to the action of natural law, just as a tree or a sponge may grow.

The city which is in the possession of such an heirloom is blessed just as is the possessor of an historic surname, or he who inherits the cumulative genius of generations of gifted forefathers. The possession of one or a score of such shrines does not, however, free any community from the obligation to form a museum for purposes of education and scientific research.

The founding of a public museum in a city like Brooklyn, is a work whose importance can scarcely be overestimated. The founders of institutions of this character do not often realize how much they are doing for the future. Opportunity such as that which is now open to the members of the Brooklyn Institute occur only once in the lifetime of a nation. It is by no means improbable that the persons now in this room have it in their power to decide whether in the future intellectual progress of this nation, Brooklyn is to lead or to follow far in the rear.

Many of my hearers are doubtless familiar with that densely populated wilderness, the east end of London, twice as large as Brooklyn, yet with scarce an intellectual oasis in its midst. Who can say how different might have been its condition to day if Walter Besant's apostolic labors had begun a century sooner, and if the People's Palace, that wonderful materialization of a poet's dream, had been for three generations brightening the lives of the citizens of the Lower Hamlets and Hackney.

Libraries and museums do not necessarily spring up where they are needed. Our governments, Federal, State, and municipal, are not "paternal" in spirit. They are less so even in practical working than in England, when, notwithstanding the theory that all should be left to private effort, the government, under the leadership of the late Prince Consort and of the Prince of Wales, has done wonderful things for all the provincial cities, as well as for London, in the encouragement of libraries, museums, art, and industrial education.

However much the state may help, the private individual must lead, organize, and prepare the way. "It is universally admitted," said the Marquis of Lansdowne in 1847, "that governments are the worst of cultivators, the worst of manufacturers, the worst of traders," and Sir Robert Peel said in similar strain that "the action of government is torpid at best."

In beginning a museum the endowment is of course the most essential thing, especially in a great city like Brooklyn, which has a high ideal of what is due to the intelligence of its populace and to the civic dignity.

Unremunerated service in museum administration, though it may be enthusiastically offered and conscientiously performed, will in the end fail to be satisfactory. Still more is it impossible for a respectable

museum to grow up without liberal expenditure for the acquisition of collections and their installation.

Good administration is not to be had for nothing. As to the qualification of a museum administrator, whether it be for a museum of science or a museum of art, it is perhaps superfluous to say that he should be the very best obtainable; a man of ability, enthusiasm, and withal of experience, for the administration of museums and exhibitions has become of late years a profession, and careful study of methods of administration is indispensable. If the new administrator has not had experience he must needs gain it at the expense of the establishment which employes him—an expense of which delay, waste, and needless experiment form considerable elements.

No investment is more profitable to a museum than that in the salary fund. Around a nucleus of men of established reputation and administrative tact, will naturally grow up a staff of volunteer assistants, whose work, assisted and directed in the best channels, will be of infinite value.

The sinews and brains of the organism being first provided, the development of its body still remains. The outer covering, the dress, can wait. It is much better to hire buildings for temporary use, or to build rude fire-proof sheds, than to put up a permanent museum building before at least a provisional idea of its *personnel* and contents has been acquired.

As has been already said, a museum must spend money in the acquisition of collections, and a great deal of money. The British Museum has already cost the nation for establishment and maintenance not far from $30,000,000. Up to 1882 over $1,500,000 had been expended in *purchase of objects* for the art collections at South Kensington alone.

Such expenditures are usually good investments of national funds, however. In 1882, after about twenty-five years of experience, the buildings and contents of the South Kensington Museum had cost the nation about $5,000,000, but competent authorities were satisfied that an auction on the premises could not bring less than $100,000,000. For every dollar spent, however, gifts will come in to the value of many dollars. In this connection it may not be amiss to quote the words of one of the most experienced of English museum administrators (presumably Sir Philip Cunliffe Owen) when asked many years ago whether Americans might not develop great public institutions on the plan of those at Kensington:

"Let them plant the thing," he said, "and it can't help growing, and most likely beyond their powers—as it has been almost beyond ours—to keep up with it. What is wanted first of all is one or two good brains, with the means of erecting a good building on a piece of ground considerably larger than is required for that building. Where there have been secured substantial, luminous galleries for exhibition, in a fire-proof building, and these are known to be carefully guarded by night and day, there can be no need to wait long for treasures to flow

into it. Above all, let your men take care of the interior and not set out wasting their strength and money on external grandeur and decoration. The inward built up rightly, the outward will be added in due season."*

Much will, of course, be given to any museum which has the confidence of the public—much that is of great value, and much that is useless.

The Trojans of old distrusted the Greeks when they came bearing gifts. The museum administrator must be on his guard against every one who proffers gifts. An unconditional donation may be usually accepted without hesitation, but a gift coupled with conditions is, except in very extraordinary cases, far from a benefaction.

A donor demands that his collection shall be exhibited as a whole, and kept separate from all others. When his collection is monographic in character and very complete, it is sometimes desirable to accept it on such conditions. As a rule, however, it is best to try to induce the donor to allow his collections to be merged in the general series—each object being separately and distinctively labeled. I would not be understood to say that the gift of collections is not, under careful management, a most beneficial source of increase to a public collection. I simply wish to call attention to the fact that a museum which accepts without reserve gifts of every description, and fails to re-enforce these gifts by extensive and judicious purchasing, is certain to develop in an unsystematical and ill-balanced way.

Furthermore, unless a museum be supported by liberal and constantly increasing grants from some State or municipial treasury, it will ultimately become suffocated. It is essential that every museum, whether of science or art should from the start make provision for laboratories and storage galleries as well as for exhibition halls.

All intellectual work may be divided into two classes, the one tending towards the increase of knowledge, the other towards its diffusion—the one toward investigation and discovery, the other toward the education of the people and the application of known facts to promoting their material welfare. The efforts of learned men are sometimes applied solely to one of these departments of effort—sometimes to both, and it is generally admitted by the most advanced teachers, that for their students as well as for themselves, the happiest results are reached by investigation and instruction simultaneously. Still more is this true of institutions of learning. The college which imparts only second-hand knowledge to its students belongs to a stage of civilization which is fast being left behind. The museum likewise must, in order to perform its proper functions, contribute to the advancement of learning through the increase as well as through the diffusion of knowledge.

We speak of educational museums and of the educational method of installation so frequently that there may be danger of inconsistency in the use of the term. An educational museum, as it is usually spoken

* Conway: Travels in South Kensington, 26.

of, is one in which an attempt is made to teach the unprofessional visitor; an institution for popular education by means of labeled collections, and it may be also by popular lectures. A college museum, although used as an aid to advanced instruction, is not an "educational museum" in the ordinary sense; nor does a museum of research, like the Museum of Comparative Zoology at Cambridge, Mass., belong to this class, although to a limited extent it attempts and performs popular educational work in addition to its other functions.

In the National Museum in Washington the collections are divided into two great classes. The exhibition series, which constitutes the educational portion of the Museum, and is exposed to public view with all possible accessions for public entertainment and instruction, and the study series, which is kept in the scientific laboratories, and is scarcely examined except by professional investigators.

In every properly conducted museum the collections must from the very beginning divide themselves into these two classes, and in planning for its administration provision should be made not only for the exhibition of objects in glass cases, but for the preservation of large collections not available for exhibition, to be used for the studies of a very limited number of specialists.

Lord Bacon, who, as we have noticed, was the first to whom occurred the idea of a great museum of science and art, complained three centuries ago, in his book "On the Advancement of Learning," that up to that time the means for intellectual progress had been used exclusively for "amusement" and "teaching," and not for the "augmentation of science."

It will undoubtedly be found desirable for certain museums, founded for local effect, to specialize mainly in the direction of popular education. If they can not also provide for a certain amount of scholarly endeavor in connection with the other advantages, it would be of the utmost importance that they should be assorted by a system of administrative co-operation with some institution which is in the position of being a center of original work.

The general character of museums should be clearly determined at its very inception. Specialization and division of labor are essential for institutions as well as for individuals. It is only a great national museum which can hope to include all departments, and which can with safety encourage growth in every direction.

A city museum, even in a great metropolis like Brooklyn, should, if possible, select certain special lines of activity, and pursue them with the intention of excelling. If there are already beginnings in many directions, it is equally necessary to decide which lines of development are to be favored, in preference to all others. Many museums fail to make this choice at the start, and instead of steering toward some definite point, drift hither and thither, and, it may be, are foundered in mid-ocean,

There is no reason why the museum of the Brooklyn Institute may not in time attain to world-wide fame, and attract students and visitors from afar. It would be wise perhaps in shaping its policy to remember that in the twin city of New York are two admirable museums which may be met more advantageously in co-operation than in rivalry. Brooklyn may appropriately have its own museum of art and its museum of natural history, but they should avoid the repetition of collections already so near at hand.

In selecting courses for the development of a museum, it may be useful to consider what are the fields open to museum work.

As a matter of convenience museums are commonly classed in two groups—those of science and those of art, and in Great Britain the great national system is mainly under the control of "The Science and Art Department of the Committee of Council on Education."

The classification is not entirely satisfactory since it is based upon methods of arrangement, rather than upon the nature of the objects to be arranged, and since it leaves a middle territory (only partially occupied by the English museum men of either department), a great mass of museum material of the greatest moment both in regard to its interest and its adaptability for purposes of public instruction.

On the one side stand the natural history collections, undoubtedly best to be administrated by the geologist, botanist, and zoologist. On the other side are the fine art collections, best to be arranged from an æsthetic standpoint, by artists. Between is a territory which no English word can adequately describe—which the Germans call *Culturgeschichte*—the natural history of cult, or civilization, of man and his ideas and achievements. The museums of science and art have not yet learned how to partition this territory. An exact classification of museums is not at present practicable, nor will it be, until there has been some redistribution of the collections which they contain. It may be instructive however, to pass in review the principal museums of the world, indicating briefly their chief characteristics.

Every great nation has its museum of nature. The natural history department of the British Museum, recently removed from the heart of London to palatial quarters in South Kensington, is probably the most extensive—with its three great divisions, zoological, botanical, and geological. The Musée d'Histoire Naturelle, in the garden of plants in Paris, founded in 1795, with its galleries of anatomy, anthropology, zoology, botany, mineralogy, and geology, is one of the most extensive, but far less potent in science now than in the days of Cuvier, Lamarck, St. Hilaire, Jussieu, and Brongniart. In Washington, again, there is a National Museum with anthropological, zoological, botanical, mineralogical, and geological collections in one organization, together with a large additional department of arts and industries, or technology.

Passing to specialized natural history collections, perhaps the most

noteworthy are those devoted to zoology, and chief among them that in our own American Cambridge. The Museum of Comparative Zoology, founded by the Agassiz's, "to illustrate the history of creation, as far as the present state of knowledge reveals that history," was in 1887, pronounced by the English naturalist, Alfred Russell Wallace, "to be far in advance of similar institutions in Europe as an educational institution, whether as regards the general public, the private student, or the specialist."

Next to Cambridge, after the zoological section of the museums of London and Paris, stands the collections in the Imperial Cabinet in Vienna, and those of the zoological museums in Berlin, Leyden, Copenhagen, and Christiania.

Among botanical museums, that in the Royal Gardens at Kew, near London, is pre-eminent, with its colossal herbarium containing the finest collection in the world, and its special museum of economic botany founded in 1847, both standing in the midst of a collection of living plants. There is also in Berlin the Royal Botanical Museum, founded in 1818 as the Royal Herbarium; in St. Petersburg, the Herbaria of the Imperial Botanical Garden.

Among the geological and mineralogical collections the mineral cabinet in Vienna, arranged in the imperial castle, is among the first.

The Museum of Practical Geology in London, which is attached to the Geological Survey of the United Kingdom, was founded in 1837, to exhibit the collections of the survey, in order to "show the applications of geology to the useful purposes of life." Like every other healthy museum, it soon had investigations in progress in connection with its educational work, and many very important discoveries have been made in its laboratories. It stands in the very first rank of museums for popular instruction, the arrangement of the exhibition halls being most admirable. Of museums of anatomy there are thirty of considerable magnitude, all of which have grown up in connection with schools of medicine and surgery, except the magnificent Army Medical Museum in Washington.

The Medical Museum of the Royal College of Surgeons in London is probably first in importance. The collections of St. Thomas's, Guy's, St. George's, and other hospitals are very rich in anatomical and pathological specimens. The oldest public anatomical museum in London is that of St. Bartholomew's.

Paris, Edinburgh, and Dublin have large anatomical and materia-medica collections. As a rule, the medical museums of Europe are connected with universities. Dr. Billings, Curator of the Army Medical museum in Washington, has traced accurately the growth of medical collections both at home and abroad, and from his address upon medical museums, as president of the Congress of American Physicians and Surgeons, delivered in 1888, the facts here stated relating to this class of museums have been gathered. The Army Medical Museum appar-

ently owes its establishment to Dr. William A. Hammond, in 1862. The museum contained in 1888 more that 15,000 specimens, besides those contained in the microscopical department. "An ideal medical museum," says Dr. Billings, "should be very complete in the department of preventive medicine or hygiene. It is a wide field, covering, as it does, air, water, food, clothing, habitations, geology, meteorology, occupations, etc., in their relations to the production or prevention of disease, and thus far has had little place in medical museums, being taken up as a specialty in the half dozen museums of hygiene which now exist."

William Hunter formed the great Glasgow collection between the years 1770 and 1800, and John Hunter, in 1787, opened the famous Hunterian Museum in London, bought by the English Government soon after (1799), and now known as the Museum of the Royal College of Surgeons.

Paris is proud of the two collections at the School of Medicine, the Musée Orfila and the Musée Dupuytren, devoted, the one to normal, the other to pathological anatomy.

Ethnographic museums are especially numerous and fine in the northern part of continental Europe. They were proposed more than half a century ago by the French geographer Jomard, and the idea was first carried into effect about 1840 in the establishment of the Danish Ethnographical Museum, which long remained the best in Europe. Within the past twenty years there has been an extraordinary activity in this direction.

In Germany, besides the museums in Berlin, Dresden, and Leipzic, considerable collections have been founded in Hamburg and Munich. Austria has in Vienna two for ethnography, the Court Museum (Hof-Museum) and the Oriental (Orientalisches) Museum. Holland has reorganized the National Ethnographical Museum (Rijks Ethnographisch Museum) in Leyden, and there are smaller collections in Amsterdam, Rotterdam, and The Hague. France has founded the Trocadero (Musée de Trocadero). In Italy there is the important Prehistoric and Ethnographic Museum (Museo prehistorico ed etnografico) in Rome, as well as the collection of the Propagando, and there are museums in Florence and Venice.

Ethnographical museums have also been founded in Christiania and Stockholm, the latter of which will include the rich material collection by Dr. Stolpe on the voyage of the frigate *Vanadis* around the world. In England there is less attention to the subject—the Christy collection in the British Museum being the only one specially devoted to ethnography, unless we include also the local Blackmore Museum at Salisbury.

In the United States the principal establishments arranged on the ethnographic plan are the Peabody Museum of Archæology in Cambridge, and the collections in the Peabody Academy of Sciences at Salem, and the American Museum of Natural History in New York.

The ethnological collections in Washington are classified on a double system, in one of its features corresponding to that of the European, in the other, like the famous Pitt Rivers collection at Oxford, arranged to show the evolution of culture and civilization without regard to race. This broader plan admits much material excluded by the advocates of ethnographic museums, who devote their attention almost exclusively to the primitive or non-European peoples.

In close relation to the ethnographic museums are those which are devoted to some special field of human thought and interest. Most remarkable among these perhaps is the Musée Guimet, recently removed from Lyons to Paris, which is intended to illustrate the history of religious ceremonial among all races of men. Other good examples of this class are some of those in Paris, such as the Musée de Marine, which shows not only the development of the merchant and naval marines of the country, but also, by trophies and other historical souvenirs, the history of the naval battles of the nation. The Musée d'Artillerie does for war, but less thoroughly, what the Marine Museum does in its own department, and there are similar museums in other countries. Of musical museums perhaps the most important is the Musée Instrumental founded by Clapisson, attached to the Conservatory of Music in Paris. There is a magnificent collection of musical instruments at South Kensington, but its contents are selected in reference to their suggestiveness in decorative art. There are also large collections in the National Museum in Washington and the Conservatory of Music in Boston, and the Metropolitan Museum in New York has recently been given a very full collection by Mrs. John Crosby Brown, of that city.

There is a Theatrical Museum at the Academie Français in Paris, a Museum of Journalism at Antwerp, a Museum of Pedagogy in Paris, which has its counterpart in South Kensington. These are professional, rather than scientific or educational, as are perhaps also the Museum of Practical Fish Culture at South Kensington and the Museums of Hygiene in London and Washington.

Archæological collections are of two classes, those of prehistoric and historic archæology. The former are usually absorbed by the ethnographic museums, the latter by the art museums. The value to the historian of archæological collections, both historic and pre-historic, has long been understood. The museums of London, Paris, Berlin, and Rome need no comment. In Cambridge, New York, and Washington are immense collections of the remains of man in America in the pre-Columbian period, collections which are yearly growing in significance, as they are made the subject of investigation, and there is an immense amount of material of this kind in the hands of institutions and private collectors in all parts of the United States.

The museum at Naples shows, so far as a museum can, the history of Pompeii at one period. The museum of St. Germain, near Paris, exhibits the history of France in the time of the Gauls and of the Roman

occupation. In Switzerland, especially at Neuchatel, the history of the inhabitants of the Lake Dwellings is shown. The Assyrian and Egyptian galleries in the British Museums are museums of themselves.

Historical museums are manifold in character, and of necessity local in interest. Some relate to the history of provinces or cities. One of the oldest and best of these is the Märkisch Provinzial Museum in Berlin; another is the museum of the city of Paris, recently opened in the Hotel Canaveral. Many historical societies have collections of this character. Some historical museums relate to a dynasty, as the Museum of the Hohenzollerns in Berlin.

The cathedrals of southern Europe, and St. Paul's, in London, are in some degrees national or civic museums. The Galileo Museum in Florence, the Shakespeare Museum at Stratford, are good examples of the museums devoted to the memory of representative men, and the Monastery of St. Mark, in Florence, does as much as could be expected of any museum for the life of Savonarola. The Sloane Museum in London, the Thorvaldsen Museum in Copenhagen, are similar in purpose and result, but they are rather biographical than historical. There are also others which illustrate the history of a race, as the Bavarian National Museum in Nuremberg.

The Museums of Fine Art are the most costly and precious of all—since they contain the master-pieces of the world's greatest painters and sculptors. In Rome, Florence, Venice, Naples, Bologna, Parma, Milan, Nurin, Modena, Padua, Ferrara, Brescia, Sienna and Pisa; in Munich, Berlin, Dresden, Vienna, and Prague; in Paris, and many provincial cities of France; in London, St. Petersburg, Madrid, Copenhagen, Brussels, Antwerp, and the Hague, are great collections, whose names are familiar to us all, each the depository of priceless treasures of art. Many of these are remarkable only for their pictures and statuary, and might with equal right be called picture galleries; others abound in the minor products of artists, and are museums in the broader sense.

Chief among them is the Louvre, in Paris, with its treasures worth a voyage many times around the world to see; the Vatican, in Rome, with its three halls of antique sculptures, its Etruscan, Egpytian, Pagan, and Christian museums, its Byzantine gallery and its collection of medals; the Naples Museum (Musée di Studii) with its marvelous Pompeiian series; the Uffizi Museum in Florence, overflowing with paintings and sculptures, ancient and modern, drawings, engraved gems, enamels, ivories, tapestries, medals, and works of decorative art of every description.

There are special collections on the boundary line between art and ethnology, the manner of best installation for which has scarcely yet been determined. The Louvre admits within its walls a museum of ship models (Musée de Marine). South Kensington includes musical instruments, and many other objects equally appropriate in an ethnological collection. Other art museums take up arms and armor, selected costumes, shoes, and articles of household use. Such objects, like por-

celains, laces, medals, and metal work, appeal to the art museum administrator through their decorations and graceful forms. For their uses he cares presumably nothing. As a consequence of this feeling, only articles of artistic excellence have been saved, and much has gone to destruction which would be of the utmost importance to those who are now studying the history of human thought in the past.

On the other hand, there is much in art museums which might to much better purpose be delivered to the ethnologist for use in his exhibition cases. There is also much which the art-museums, tied as it often is to traditionary methods of installation, might learn from the scientific museums.

Many of the arrangements in the European art collections are calculated to send cold shivers down the back of a sensitive visitor. The defects of these arrangements have been well described by a German critic, W. Bürger. "Our museums," he writes, "are the veritable grave-yards of art in which have been heaped up, with a tumulous-like promiscuousness, the remains which have been carried thither. A Venus is placed side by side with a Madonna, a satyr next to a saint. Luther is in close proximity to a Pope, a painting of a lady's chamber next to that of a church. Pieces executed for churches, palaces, city halls, for a particular edifice, to teach some moral or historic truth, designed for some especial light, for some well studied surrounding, all are hung pell-mell upon the walls of some non committal gallery—a kind of posthumous asylum, where a people, no longer capable of producing works of art, come to admire this magnificient gallery of débris."

When a museum building has been provided, and the nucleus of a collection and an administrative staff are at hand, the work of museum-building begins, and this work, it is to be hoped, will not soon reach an end. *A finished museum is a dead museum, and a dead museum is a useless museum.* One thing should be kept prominently in mind by any organization which intends to found and maintain a museum, that the work will never be finished, that when the collections cease to grow, they begin to decay. A friend relating an experience in South Kensington, said: "I applied to a man who sells photographs of such edifices for pictures of the main building. He had none. 'What, no photographs of the South Kensington Museum!' I exclaimed; with some impatience. 'Why, sir,' replied the man, mildly, 'you see the museum doesn't stand still long enough to be photographed.' And so indeed it seems," continued Mr. Conway, "and this constant erection of new buildings and of new decorations on those already erected, is the physiognomical expression of the new intellectual and æsthetic epoch which called the institution into existence, and is through it gradually climbing to results which no man can foresee."

My prayer for the museums of the United States and for all other similar agencies of enlightenment is this—that they may never cease to increase.

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